# READ ONLY MEMORIES

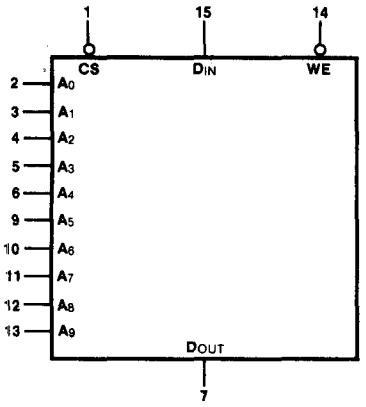
## BIPOLAR ROMs AND PROMs

| Item | Organization | DEVICE NO. | Description [1] | Address Access Time ns (Typ) | Chip Select Access Time ns (Typ) | Read Cycle Time | | Power Dissipation mW (Typ) | Logic/Connection Diagram | Package(s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 0°C to +70°C ns (Max) | -55°C to +125°C ns (Max) | | | |
| **TTL** | | | | | | | | | | |
| 1 | 16x48x8 | **93458** | FPLA,OC | 25 | 15 | — | — | 750 | M20 | 8E,9Y |
| 2 | 16x48x8 | **93459** | FPLA,3S | 25 | 15 | — | — | 750 | M20 | 8E,9Y |
| 3 | 256x4 | **93457** | ROM,OC | 25 | 12 | 45 | 60 | 425 | M17 | 3D,6D,9B |
| 4 | 256x4 | **93467** | ROM,3S | 25 | 12 | 45 | 60 | 425 | M17 | 3D,6D,9B |
| 5 | 256x4 | **93417** | PROM,OC | 25 | 12 | 45 | 60 | 425 | M17 | 3D,6D,9B |
| 6 | 256x4 | **93427** | PROM,3S | 25 | 12 | 45 | 60 | 425 | M17 | 3D,6D,9B |
| 7 | 512x4 | **93436** | PROM,OC | 30 | 15 | 50 | 60 | 475 | M10 | 3D,6D,9B |
| 8 | 512x4 | **93446** | PROM,3S | 30 | 15 | 50 | 60 | 475 | M10 | 3D,6D,9B |
| 9 | 512x4 | **93431** | ROM,OC | 30 | 15 | 50 | 60 | 475 | M10 | 4B,6D,9B |
| 10 | 512x4 | **93441** | ROM,3S | 30 | 15 | 50 | 60 | 475 | M10 | 4B,6D,9B |
| 11 | 512x8 | **93432** | ROM,OC | 35 | 15 | 55 | 70 | 650 | M11 | 4R,6M,7L,9N |
| 12 | 512x8 | **93442** | ROM,3S | 35 | 15 | 55 | 70 | 650 | M11 | 4R,6M,7L,9N |
| 13 | 512x8 | **93438** | PROM,OC | 35 | 15 | 55 | 70 | 650 | M11 | 4R,6M,7L,9N |
| 14 | 512x8 | **93448** | PROM,3S | 35 | 15 | 55 | 70 | 650 | M11 | 4R,6M,7L,9N |
| 15 | 1024x4 | **93452** | PROM,OC | 30 | 15 | 55 | 70 | 650 | M18 | 8F,9M |
| 16 | 1024x4 | **93453** | PROM,3S | 30 | 15 | 55 | 70 | 650 | M18 | 8F,9M |
| 17 | 1024x8 | **93450** | PROM,OC | 30 | 20 | 45 | 60 | 550 | M21 | 4R,6M,9N |
| 18 | 1024x8 | **93451** | PROM,3S | 30 | 20 | 45 | 60 | 550 | M21 | 4R,7L,9N |
| 19 | 1024x8 | **93454** | ROM,OC | 30 | 20 | 45 | 60 | 550 | M12 | 4R,6M,7L,9N |
| 20 | 1024x8 | **93464** | ROM,3S | 30 | 20 | 45 | 60 | 550 | M12 | 4R,6M,7L,9N |
| **ECL** | | | | | | | | | | |
| 21 | 256x4 | **10416** | PROM | 15 | 4.0 | 25 [2] | — | 650 | M19 | 4B,6D |
| 22 | 256x4 | **100416** | PROM | 15 | 4.0 | 25 [2] | — | 650 | M19 | 4B,6D |

1. OC = open collector, 3S = 3-state
2. -30°C to +85°C

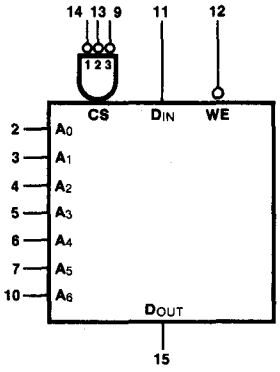
# MEMORY

## M6
**93415, 93L415, 93415A,**
**93425, 93L425, 93425A**



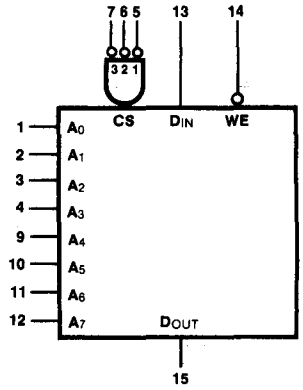

$V_{CC}$ = Pin 16
GND = Pin 8

## M7
**10405**



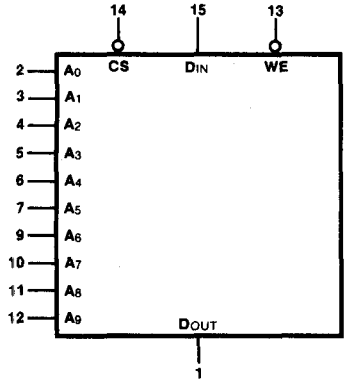

$V_{CC}$ = GND = Pins 1 and 16
$V_{EE}$ = Pin 8

## M8
**10410, 10411, 10414**
**100414**



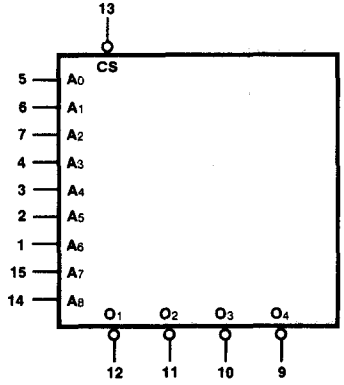

$V_{CC}$ = Pin 16
$V_{EE}$ = Pin 8

## M9
**10415, 10415A, 100415**



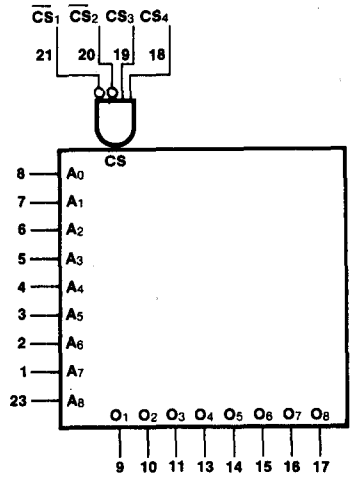

$V_{CC}$ = Pin 16
$V_{EE}$ = Pin 8

## M10
**93431, 93441**
**93436, 93446**




$V_{CC}$ = Pin 16
$V_{EE}$ = Pin 8

## M11
**93432, 93442**
**93438, 93448**




$V_{CC}$ = Pin 24
GND = Pin 12